

1/10/05

## IMPROVED WALL STUD

### TECHNICAL FIELD

This invention relates to wall structures and more particularly to a stud  
 5 for a wall structure.

### BACKGROUND ART

The transmission of noise from one room or compartment to another is  
 an often occurring problem and it is an object of this invention to provide an  
 improved wall stud which substantially lessens transmission of noise through a  
 10 wall structure.

### DISCLOSURE OF INVENTION

According to one aspect of the invention there is provided a stud for a  
 wall structure comprising a central stud member having opposed faces, an  
 acoustic support member mounted on each face of the central stud member  
 15 and an outer stud member on the outer side of each acoustic support member.

According to another aspect of the invention there is provided a wall  
 structure comprising a plurality of spaced apart wall studs as defined above,  
 wall sheeting connecting each side of adjacent wall studs and insulating  
 material between the wall sheeting.

### BRIEF DESCRIPTION OF THE DRAWING

In order that the invention may be more readily understood and put into  
 practical effect, reference will now be made to Fig 1 of the accompanying  
 drawing which is a cross-sectional view of a wall stud according to one  
 embodiment of the invention.

### MODES FOR CARRYING OUT THE INVENTION

The wall stud 10 shown in the drawing includes a central stud member  
 11 having opposed end faces 16 and 17, an acoustic support member 12

mounted on the end face 17 and an acoustic support member 13 mounted on the end face 16.

The acoustic support member 13 carries an outer stud member 14 and the acoustic support member 12 carries an outer stud member 15.

5           In this instance, the acoustic support members 12 and 13 have a major portion 18 having an inner face 19 and outwardly extending spaced apart arms 20 and 21 which terminate in inwardly directed flanges 22 and 23 which together define recesses 24 and 25. The inner faces 19 are adhered to or otherwise secured to the base of the recesses 16a and 17a formed in the end  
10 faces 16 and 17 of the central stud member 11.

The inner faces 19 of the acoustic support members 12 and 13 may have spaced apart sound attenuating recesses formed along its length. The outer support members 14 and 15 are, as shown in the drawing, of a sideways T configuration with the head of the T 26 held captive in the recesses 24 and  
15 25.

Wall sheets 27 and 28 are secured to the outer faces of the outer stud members 14 and 15. The space between the wall sheets 27 and 28 and adjacent studs 11 may be filled with insulating material or bats.

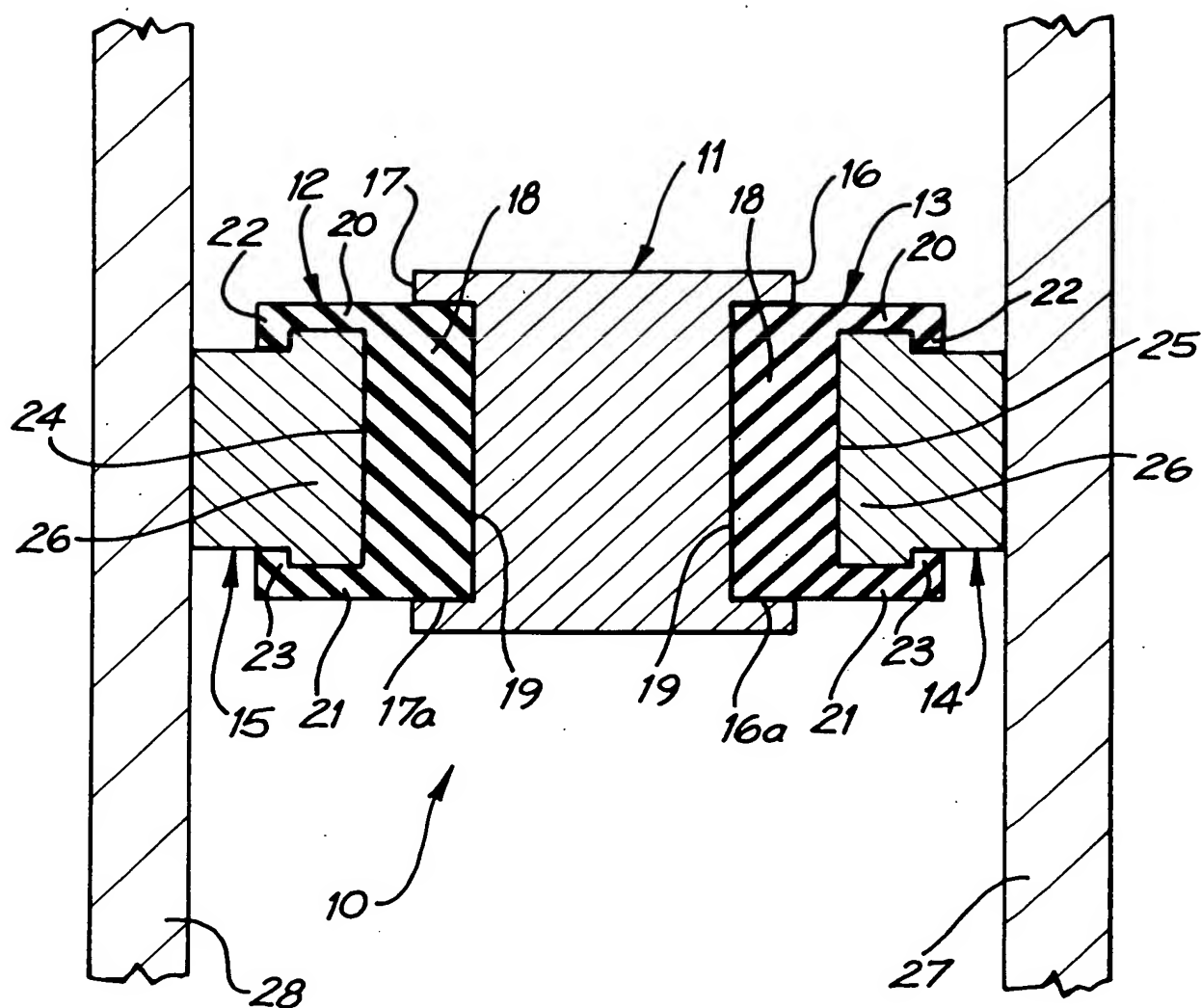
Various modifications may be made in detail of design and construction  
20 without departing from the scope and ambit of the invention.

CLAIMS:

1. A composite stud for a wall structure comprising:-
  - (i) a central stud member having opposed faces and a recess in each face,
  - (ii) an acoustic support member mounted on each face of the central stud member, each acoustic support member being seated in the recess formed in the face of the central stud, and,
  - (iii) an outer stud member on the outer side of and held captive by each acoustic support member.
2. A composite stud according to claim 1 wherein each acoustic support member has a major portion having an inner face and outwardly extending spaced apart arms which terminate in inwardly directed flanges which define recesses.
3. A composite stud according to claim 2 wherein each outer stud member has an enlarged head that is located in the recess and held captive therein by the flanges.
4. A wall structure comprising a plurality of spaced apart composite wall studs as defined in claim 1, wall sheeting connecting each side of adjacent wall studs and insulating material between the wall sheeting.

ABSTRACT

A stud (10) for a wall structure has a central stud member (11) having opposed faces (16 and 17), an acoustic support member (12, 13) mounted on each face (16, 17) of the central stud member (11) and an outer stud member (14) on the outer side of each acoustic support member (12, 13).



**FIG. 1**